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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,397

04/19/2007

Luc Bissonnette

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GODFREY & KAHN S.C.
780 NORTH WATER STREET
MILWAUKEE, WI 53202

EXAMINER

SISSON, BRADLEY L

ART UNIT

PAPER NUMBER

1634

MAIL DATE

DELIVERY MODE

06/26/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,397	Applicant(s) BISSONNETTE ET AL.	
	Examiner Bradley L. Sisson	Art Unit 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-58 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.
2. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.
3. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-52, drawn to a method for detecting the presence of nucleic acids.

Group II, claim(s) 53-57, drawn to a kit.

4. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The inventions are linked through the technical feature of “neutral capture probes” (independent claims 27 and 53). The “neutral capture probes” are not defined in terms of any nucleotide sequence, whether or not the probes are immobilized or not, or any other physical or chemical property.
5. US Patent 6,046,004 (Wu et al.), at column 5, bridging to column 6, discloses using probes that comprise peptide nucleic acids as well as methylphosphonate. Such disclosure is deemed to meet the limitation of applicant’s “neutral capture probe” as claim 54 defines the probes as comprising these very components. Accordingly, the technical feature that links the inventions does not constitute a special technical feature under PCT Rule 13.1 and therefore, the inventions lack unity of invention.

Election of Species

6. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1. In the event that applicant elects the invention of Group I, the following election of species applies. Applicant is to elect one species from each of groups "a." through "h."

7. The species are as follows:

- a. Positively-charged reporter (claims 1 and 27)
 - i. Transition metal atoms
 - ii. Molecules
 - iii. Macromolecules
- b. Capture probes are immobilized to a solid surface (claims 3-12 and 29-38)
 - i. No
 - ii. Yes
 - (1) Support surface
 - (a) Glass surface
 - (i) Probes are in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent

- b) Surface does comprise passivation agent
- 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - b) Aminoalkylsilane activated with carbonyldiimidazole
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - c) Thiol moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - d) Epoxy moiety

- i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
- (ii) Probes are not in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent
 - b) Surface does comprise passivation agent
 - 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent

- ii) Surface does comprise
passivation agent
- b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- c) Thiol moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- d) Epoxy moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- e) Carboxyl moiety
 - i) Surface does not comprise
passivation agent

- ii) Surface does comprise passivation agent
- (b) Silicon surface
 - (i) Probes are in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent
 - b) Surface does comprise passivation agent
 - 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - b) Aminoalkylsilane activated with carbonyldiimidazole
 - i) Surface does not comprise passivation agent

- ii) Surface does comprise passivation agent
 - c) Thiol moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - d) Epoxy moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
- (ii) Probes are not in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent

- b) Surface does comprise passivation agent
- 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - b) Aminoalkylsilane activated with carbonyldiimidazole
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - c) Thiol moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - d) Epoxy moiety

- i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
- (c) Gold surface
 - (i) Probes are in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent
 - b) Surface does comprise passivation agent
 - 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent

- ii) Surface does comprise
passivation agent
- b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- c) Thiol moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- d) Epoxy moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- e) Carboxyl moiety
 - i) Surface does not comprise
passivation agent

- ii) Surface does comprise
passivation agent
- (ii) Probes are not in an array
 - 1) Surface is not chemically modified to yield
functional groups
 - a) Surface does not comprise
passivation agent
 - b) Surface does comprise passivation
agent
 - 2) Surface is chemically modified to yield
functional groups where function group is
 - a) Aldehyde moiety
 - iii) Surface does not comprise
passivation agent
 - iv) Surface does comprise
passivation agent
 - b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent

- c) Thiol moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - d) Epoxy moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
- (d) Electrode surface
 - (i) Probes are in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent

- b) Surface does comprise passivation agent
- 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - b) Aminoalkylsilane activated with carbonyldiimidazole
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - c) Thiol moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - d) Epoxy moiety

- i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
- (ii) Probes are not in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent
 - b) Surface does comprise passivation agent
 - 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent

- ii) Surface does comprise
passivation agent
- b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- c) Thiol moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- d) Epoxy moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- e) Carboxyl moiety
 - i) Surface does not comprise
passivation agent

- ii) Surface does comprise
passivation agent
- (e) Particle surface
 - (i) Probes are in an array
 - 1) Surface is not chemically modified to yield
functional groups
 - a) Surface does not comprise
passivation agent
 - b) Surface does comprise passivation
agent
 - 2) Surface is chemically modified to yield
functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
 - b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent

- ii) Surface does comprise
passivation agent
 - c) Thiol moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
 - d) Epoxy moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- (ii) Probes are not in an array
 - 1) Surface is not chemically modified to yield
functional groups
 - a) Surface does not comprise
passivation agent

- b) Surface does comprise passivation agent
- 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - b) Aminoalkylsilane activated with carbonyldiimidazole
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - iii)
 - c) Thiol moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - d) Epoxy moiety

- i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
- (f) Gel matrix
 - (i) Probes are in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent
 - b) Surface does comprise passivation agent
 - 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent

- ii) Surface does comprise
passivation agent
- b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- c) Thiol moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- d) Epoxy moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- e) Carboxyl moiety
 - i) Surface does not comprise
passivation agent

- ii) Surface does comprise
passivation agent
- (ii) Probes are not in an array
 - 1) Surface is not chemically modified to yield
functional groups
 - a) Surface does not comprise
passivation agent
 - b) Surface does comprise passivation
agent
 - 2) Surface is chemically modified to yield
functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
 - b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent

- c) Thiol moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - d) Epoxy moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
- (g) Membrane surface
 - (i) Probes are in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent

- b) Surface does comprise passivation agent
- 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - b) Aminoalkylsilane activated with carbonyldiimidazole
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - iii)
 - c) Thiol moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - d) Epoxy moiety

- i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
- (ii) Probes are not in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent
 - b) Surface does comprise passivation agent
 - 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent

- ii) Surface does comprise
passivation agent
- b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- c) Thiol moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- d) Epoxy moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- e) Carboxyl moiety
 - i) Surface does not comprise
passivation agent

- ii) Surface does comprise
passivation agent
- (h) Paper surface
 - (i) Probes are in an array
 - 1) Surface is not chemically modified to yield
functional groups
 - a) Surface does not comprise
passivation agent
 - b) Surface does comprise passivation
agent
 - 2) Surface is chemically modified to yield
functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
 - b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent

- ii) Surface does comprise
passivation agent
 - c) Thiol moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
 - d) Epoxy moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- (ii) Probes are not in an array
 - 1) Surface is not chemically modified to yield
functional groups
 - a) Surface does not comprise
passivation agent

- b) Surface does comprise passivation agent
- 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - b) Aminoalkylsilane activated with carbonyldiimidazole
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - c) Thiol moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - d) Epoxy moiety

- i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
- (i) Plastic surface
 - (i) Probes are in an array
 - 1) Surface is not chemically modified to yield functional groups
 - a) Surface does not comprise passivation agent
 - b) Surface does comprise passivation agent
 - 2) Surface is chemically modified to yield functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise passivation agent

- ii) Surface does comprise
passivation agent
- b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- c) Thiol moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- d) Epoxy moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
- e) Carboxyl moiety
 - i) Surface does not comprise
passivation agent

- ii) Surface does comprise
passivation agent
- (ii) Probes are not in an array
 - 1) Surface is not chemically modified to yield
functional groups
 - a) Surface does not comprise
passivation agent
 - b) Surface does comprise passivation
agent
 - 2) Surface is chemically modified to yield
functional groups where function group is
 - a) Aldehyde moiety
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent
 - b) Aminoalkylsilane activated with
carbonyldiimidazole
 - i) Surface does not comprise
passivation agent
 - ii) Surface does comprise
passivation agent

- iii)
 - c) Thiol moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - d) Epoxy moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
 - e) Carboxyl moiety
 - i) Surface does not comprise passivation agent
 - ii) Surface does comprise passivation agent
- c. Probes (claims 13 and 39)
 - i. Peptide nucleic acids
 - ii. Methylphosphonate
- d. Nucleic acid (claims 14 and 40)
 - i. DNA
 - ii. RNA

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- e. Nucleic acid targets generated by (claims 15 and 41)
 - i. Polymerase chain reaction
 - ii. Reverse transcriptase-PCR
 - iii. Strand displacement amplification
 - iv. Ligase chain reaction
 - v. Transcription-associated amplification
 - vi. Nucleic acid sequence-based amplification
 - vii. Whole genome amplification
 - viii. Helicase-dependent isothermal amplification
 - ix. Chemical synthesis
- f. Reporter (claims 17-19, 23-25, 43, 44, and 48-51)
 - i. Serve as transducers
 - ii. Exhibit low affinity for uncharged probes
 - iii. Capable of electrostatically binding to the phosphate backbone of hybrids
 - iv. Comprise polythiophenes
 - (1) Are not water soluble and cationic
 - (2) Are water soluble and cationic
 - v. Comprise enzymes
 - (1) Alkaline phosphatase with polystyrene beads conjugated thereto
 - (2) Other than (1)
- g. Transition metal atoms (claims 20 and 45)
 - i. Ag^+

- ii. Cd^{++}
 - h. Detection is (claims 26 and 52)
 - i. Optical detection
 - ii. Fluorometric detection
 - iii. Colorimetric detection
 - iv. Electrochemical detection
 - v. Chemiluminescent detection
 - vi. Microscopy
 - vii. Spectrophotometric detection
8. Applicant is required, in reply to this action, to elect a single species from each of the preceding groupings to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.
9. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).
10. The following claim(s) are generic: None.
11. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special

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technical features for the following reasons: The species of Group I are drawn to different compounds and/or elements such that a search of one species is not coextensive with the other species and that art identifying one species would not reasonably suggest the other species.

12. In the event that applicant elects the invention of Group II, the following election of species applies. Applicant is to elect one species from each of groups a. through h.

13. The species are as follows:

a. Positively-charged reporter(s) are (claim 53):

i. Transition metal

ii. Molecules

iii. Macromolecules

b. Neutral capture probes are (claims 54 and 55)

i. Peptide nucleic acids

(1) Immobilized to surface

(2) Not immobilized to surface

ii. Methylphosphonate

(1) Immobilized to surface

(2) Not immobilized to surface

c. Support surface is (claim 56)

i. Glass surface

ii. Silicon surface

iii. Gold surface

- iv. Electrode surface
- v. Particle surface
- vi. Gel matrix
- vii. Membrane surface
- viii. Paper surface
- ix. Plastic surface

14. Applicant is required, in reply to this action, to elect a single species from each of the preceding groupings to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

15. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

16. The following claim(s) are generic: None.

17. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: The species of Group II are drawn to different compositions of matter. A search of one compound is not coextensive with all other compounds, therein necessitating additional searches, which places an undue burden upon the Office.

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18. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species from each of the respective groups or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

19. The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

20. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

21. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

22. In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined

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claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained.

Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley L. Sisson whose telephone number is (571) 272-0751. The examiner can normally be reached on 6:30 a.m. to 5 p.m., Monday through Thursday.

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, Ph.D. can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bradley L. Sisson/
Primary Examiner, Art Unit 1634